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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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IBM CORPORATION ROCHESTER IP LAW DEPT. 917 3605 HIGHWAY 52 NORTH ROCHESTER, MN 55901-7829			EXAMINER ROMANO, JOHN J	
			ART UNIT 2192	PAPER NUMBER
			MAIL DATE 06/25/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/631,925	Applicant(s) ARIDOR ET AL.	
	Examiner John J. Romano	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's amendment and response received April 11th, 2007, responding to the January 11th, 2007, Office action provided in the rejections of claims 1-22, wherein claim 22 has been cancelled and claims are pending in the application and which have been fully considered by the examiner.

Applicant's arguments and amendments with respect to the objection of claims 1-21 are persuasive. Accordingly, the objections to the respective claims are withdrawn.

Applicant's arguments and amendments with respect to the §101 rejection of claim 21 are persuasive. Accordingly, the §101 rejection claim 21 is withdrawn.

Applicant arguing for the claims being patentable over *the prior art* (see pages 7-14 of the amendment and response) are not persuasive, as will be addressed under Prior Art's Arguments – Rejections section at item 2 and the claim rejections below. Accordingly, Applicants' arguments necessitated additional clarifications. Thus, the rejection of the claims over prior art in the previous Office action is maintained in light of the necessitated additional clarifications provided hereon and **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Prior Art's Arguments – Rejections

2. Applicant's arguments filed April 11th, 2007, in particular on pages 8-13, have been fully considered but they are not persuasive. For example,

(A) In regard to the argument that *Bartz* does not disclose identifying changes between a particular release of a standard code base and a modified version of that release" (See response, page 9 of 14, last paragraph), the Examiner respectfully disagrees. It is noted that the features upon which applicant relies (i.e., standard release of the Java Development Toolkit) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant did not point out and the examiner could not find any explicit and deliberate definition in the specification, the examiner is interpreting a "standard" code base to reasonably mean a basis for comparison, a reference point against which other versions of code can be compared against. As Applicant specifically recites (See originally filed specification, page 9, third paragraph) "A standard code base in the context of the invention may include practically any program code that capable of being

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specifically adapted or otherwise modified by a developer". Accordingly, a "particular release of a standard code base" is interpreted as any particular release of code used for a basis for comparison against a modified version. Therefore, *Bartz* indeed does teach the "identifying changes between a particular release of a standard code base and a modified version", as claimed.

(B) In regard to the argument that the applied passage of *Bartz*, "arguably disclosing changes made to a particular build of a project, address how to reconcile and potentially merge changes made by different developers to the same basic file. The differences in this case, are between different modifications to a common file (See response, page 10 of 14, 1st paragraph), the examiner respectfully disagrees. The examiner specifically recited (See previous office action, page 4, claim 1 & herein-below):

- "...and using the difference data in applying the changes made to the first release of the standard code base to a second release of the standard code base." (E.g., see Figure 7, box 732 & Column 8, line 60 – Column 9, line 13), wherein the changes are applied (box 732) in the specified set.

Note that *Bartz* teaches at Column 8, lines 64-65, "For source changes, this is a set of deltas between two versions of the project." (emphasis added). That is to say, determining changes after code (release version) base to another version (release) of that code base (the same project source code and/or release standard) must have been done to produce the set of deltas here.

In regard to the cited passage above by examiner, it expressly discloses "For source changes, this is a set of deltas between two versions of the project." (see Column 8, lines 64-65) wherein the deltas (difference data) are between two different versions. The cited passage also expressly discloses "Block 732 responds to another command to apply the changes in the specified set" (Column 9, lines 8-9).

It should be noted at this point that *Bartz's* invention is meant to offer greater capabilities in change management for software development systems to provide increased speed and reliability in merging versioned documents (See Column 1, lines 48-60). *Bartz's* intentions are to increase flexibility to incorporate patches and semantic relationships between changes (Column 1, lines 66- Column 2, line 3) over typical source-control systems for controlling different versions of the source code (Column 1, lines 24-27). In other words, although *Bartz* focus' on merging, it is evident that typical versioning (release) is intended and indeed disclosed.

Additional support for the differences being between two different version rather than different modification to a common file, as argued (page 10 of 14, first paragraph) are evident in Figure 6, Column 8, lines 35-36, wherein *Bartz* expressly discloses:

- "Change-set links can be made to arbitrary items, such as versioned documents (release version), files outside the version store, even to web pages. They can also be links to source changes, such as a delta between two version shown at 633. The latter are not documents as such, and they are tracked by the system. Change-set entries can

also include system namespace changes, such as adds, renames, deletes, and shares". (Figure 6, lines 32-40 – emphasis added).

Again, although *Bartz* is focusing on extending the typical version control system by incorporating namespace changes, renames, deletes and merging; this does not mean that the differences cannot be between versioned documents. In regard to applying the changes to another version or release of that standard code base (See *Bartz*, Figure 6, 634, column 8, lines 27-32), wherein a bug to version 631 is applied to versions 631, 633 and 634. Accordingly, *Bartz* indeed discloses applying changes to different versions (releases).

(C) In regard to the argument that *Bartz* does not disclose "a canonical parser", as has been admitted by the examiner (See page 11 of 14, first paragraph), the examiner agrees and notes that Thomas was applied to "a canonical parser". However, in regard to the argument that *Bartz* does not teach "parsing a modified version of a first release of a standard code base to generate a canonically-parsed representation of the modified version (See 11 of 14, first paragraph) the examiner respectfully disagrees. As acknowledged by Applicant, the cited passage at column 5, lines 10-35 recognizes that lines of text often correspond to (represent) semantic elements in program code. In other words, the fact that it happens by chance does not mean that it does not happen. *Bartz* further discloses identifying and representing bug fixes, (Column 8, lines 28-32) which are inherently semantic as well. In any case, *Bartz* is not purported to specifically parse out semantic elements. Examiner notes that "canonical parser" was removed

from all portions of *Bartz* except for generating. Accordingly, the rejection is maintained in light of Applicant's instant argument.

(D) In regard to the argument that *Thomas* does not disclose "a canonical parser", due to a canonically-parsed representation of a code base, being a defined structure having a defined semantic ordering of semantic elements in a code base (See page 12 of 14, first paragraph) the examiner respectfully disagrees. It is noted that the features upon which applicant relies (i.e., semantic ordering of semantic elements) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Accordingly, *Thomas* teaches semantic parsing (see applied passage & paragraph [0040]), wherein "all semantic differences between the two XML files are recorded in the delta file and these include changes to the textual/visual data in the XML document as well as formatting and other command language contained in the XML files". It is also noted that *Thomas* expressly discloses "Canonical XML Version 1.0" See paragraph [0003]. As such, *Thomas* is interpreted to read on the plain language of the claim "canonical parsing representation".

(E) In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (See response, page 12 of 14, third paragraph), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the

claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, as addressed above in section (B) *Bartz's* invention is meant to offer greater capabilities in change management for software development systems to provide increased speed and reliability in merging versioned documents (See Column 1, lines 48-60). *Bartz's* intentions are to increase flexibility to incorporate patches and semantic relationships between changes (Column 1, lines 66- Column 2, line 3) over typical source-control systems for controlling different versions of the source code (Column 1, lines 24-27). Accordingly, one of ordinary skill in the art, at the time the invention was made, would have been motivated to look at other delta-versioning disclosures representing changes, such as Thomas in order to increase the flexibility and reliability disclosed by **Bartz** above.

(F) In regard, to Applicants arguments pertaining to the other similar independent claims, see sections (A) – (E) above as discussed in relation to independent claim 1. Subsequently, the rejection of the depending claims are maintained for at least the reasons presented above and below in the claim rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 8-15 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartz et al., US 7,131,112 (hereinafter **Bartz**) in view of Thomas, US 2003/0167446 (hereinafter **Thomas**).

In regard to claim 1, **Bartz** discloses:

- *"A method for adapting a standard code base..."* (E.g., see Figure 2 & Column 4, lines 29-31), wherein a method for differencing of two or more documents to determine conflicts among different version, and for other purposes is disclosed.
- *"...parsing a modified version of a first release of a standard code base to generate a canonically-parsed representation of the modified version..."* (E.g., see Figure 3 & Column 5, lines 10-35), wherein character-level differencing pinpoints the actual characters or symbols that differ between the documents or source code.
- *"...generating difference data representative of changes made to...the standard code base using the parsed of the modified version..."* (E.g., see Figure 3 & Column 6, line 61 – Column 7, line 4), wherein differences between the input documents are identified.
- *"...the first release of..."* (E.g., see Figure 4 & Column 9, lines 31-34), wherein the reference document is a previous release (first release).
- *"...and using the difference data in applying the changes made to the first release of the standard code base to a second release of the standard code base."* (E.g., see Figure 7, box 732 & Column 8, line 60)

– Column 9, line 13), wherein the changes are applied (box 732) in the specified set.

But **Bartz** does not expressly disclose “canonically parsed representation” of the code or programs. However, **Thomas** discloses:

- “...*canonically parsed representation*...” (E.g., see Figure 3, diamond 34 & paragraph [0039]), wherein semantic differences are disclosed.

Bartz and **Thomas** are analogous art because they are both concerned with the same field of endeavor, namely, a differencing process comprising two documents. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine **Bartz**’ canonically parsed representation with **Thomas**’s canonical parsing. The motivation to do so would have been to expose the semantics of the changes as taught by **Bartz** (E.g., see Column 5, lines 18-20).

In regard to claim 2, the rejections of base claim 1 are incorporated.

Furthermore, **Bartz** discloses:

- “...*parsing an unmodified version of the first release of the standard code base to generate a ...parsed representation of the unmodified version wherein generating the difference data includes comparing the ...parsed representations of the unmodified and modified versions of the first release of the standard code base.*” (E.g., see Figure 4 & Column 9, lines 31-34), wherein the reference document is a previous release (first release) and the changes (differences) are identified.

In regard to claim 3, the rejections of base claim 1 are incorporated.

Furthermore, **Bartz** discloses:

- "...parsing...the standard code base to generate a canonically-parsed representation of the intermediate version, wherein generating the difference data includes comparing the canonically-parsed representations of the intermediate and modified versions of the first release of the standard code base." (E.g., see Figure 3 & Column 5, lines 10-35), wherein character-level differencing pinpoints the actual characters or symbols that differ between the documents or source code.

But, **Bartz** does not expressly disclose "...an intermediate version of the first release...". However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to difference between any two versions including an intermediate version of the first release and the first release. The motivation to do so was disclosed by **Bartz** (E.g., see Column 8, lines 64-65) wherein changes are between two versions of a project. Additionally, **Bartz** teaches enlistment files (see Figure 8, Column 9, lines 46-66) which are intermediate files.

In regard to claim 4, the rejections of base claim 3 are incorporated.

Furthermore, **Bartz** discloses:

- "...the intermediate version of the first release of the standard code base is generated using automated source transformation, and wherein the modified version of the first release of the standard code

base is generated by applying manual changes to the intermediate version of the first release of the standard code base.” (E.g., see Figure 4 + 4a & Column 6, line 30 – Column 7, line 6), wherein the developers manual changes are automatically merged into the code base (first release).

In regard to claim 5, the rejections of base claim 1 are incorporated. But, **Bartz** does not expressly disclose “...wherein generating the difference data includes identifying a plurality of changed semantic components...”. However, **Thomas** discloses:

- “...wherein generating the difference data includes identifying a plurality of changed semantic components...” (E.g., see Figure 3, diamond 24 & paragraph [0039]), wherein semantic differences are identified between two documents.

In regard to claim 8, the rejections of base claim 5 are incorporated.

Furthermore, **Bartz** discloses:

- “...includes notifying a user of a change in a changed ... component.” (E.g., see Figure 4A & Column 6, line 67- Column 7, line 6), wherein a user is notified (alerted) to a possible conflict among a change.

In regard to claim 9, the rejections of base claim 5 are incorporated. But, **Bartz** does not expressly disclose “...includes automatically applying a change in a changed semantic component to the second release of the standard code base.”. However, **Thomas** discloses:

- "...includes automatically applying a change in a changed semantic component to the second release of the standard code base." (E.g., paragraph [0108] + [0109]), wherein a changed semantic component is automatically applied.

In regard to claim **10**, the rejections of base claim **1** are incorporated. But, **Bartz** does not expressly disclose "...using the difference data in applying the changes made to the first release of the standard code base to a third release of the standard code base.". However, **Thomas** discloses:

- "...using the difference data in applying the changes made to the first release of the standard code base to a third release of the standard code base." (E.g., paragraph [0123]), wherein the appropriate delta file is applied to achieve the corresponding version.

In regard to claims **11-15** and **18-20**, this is an apparatus version of the claimed method discussed above, in claims **1-5** and **8-10**, respectively, wherein all claimed limitations have also been addressed and/or cited as set forth above. For example, see **Bartz**, (Figure 1), wherein a memory, processor and program code resident in the memory to implement the process are taught.

In regard to claim **21**, this is a program product version of the claimed method discussed above, in claim **1**; wherein all claimed limitations have also been addressed and/or cited as set forth above. For example, see **Bartz**, (Figure 1).

4. Claims **6, 7, 16** and **17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bartz** in view of **Thomas** and further in view of Ziebell, US 6,385,768 (hereinafter **Ziebell**).

In regard to claim **6**, the rejections of base claim **5** are incorporated. But, **Bartz** and **Thomas** do not expressly disclose "...the change is selected from the group consisting of deletion, modification, addition and replacement..". However, **Ziebell** discloses:

- "...the change is selected from the group consisting of deletion, modification, addition..." (E.g., see Column 1, lines 55-57), wherein changes may represent features that have been added, deleted and modified.

Bartz, Thomas and **Ziebell** are analogous art because they are both concerned with the same field of endeavor, namely, a differencing process comprising two or more documents. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine **Ziebell's** change method with **Bartz and Thomas's** version control system to include changes selected from the group of deletion, modification, addition and replacement. One of ordinary skill in the art would have been motivated to include replacement because replacement is just a combination of deleting and adding or modifying. The motivation to do so would have been to manage the change to keep track of modifications in source code and other versioned documents across time and across multiple development groups working in parallel with each other as taught by **Bartz** (E.g., see Column 1, lines 34-37).

In regard to claim **7**, the rejections of base claim **6** are incorporated.

Furthermore, **Bartz** discloses:

- "...generating the difference data includes generating at least one XML file, the XML file including a tag for a changed semantic component, the tag identifying the changed semantic component and including an attribute representing the change made to the changed semantic component." (E.g., see Figure 3 & paragraph [0034]), wherein XML files including tags for a changed semantic component including attributes represent changes made.

In regard to claims **16 and 17**, this is an apparatus version of the claimed method discussed above, in claims **6 and 7**, wherein all claimed limitations have also been addressed and/or cited as set forth above. For example, see **Bartz**, (Figure 1).

Conclusion

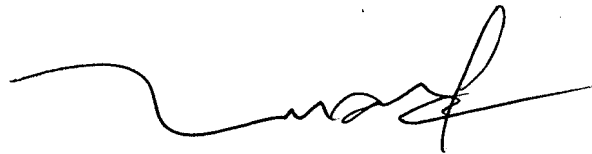
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Romano whose telephone number is (571) 272-3872. The examiner can normally be reached on 8-5:30, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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JJR

A handwritten signature in black ink, appearing to read 'Tuan Dam', with a stylized, flowing script.

TUAN DAM
SUPERVISORY PATENT EXAMINER